

10/785145

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INTELLECTUAL PROPERTY LAW

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September 13, 2005

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Re: Correction of Mistake in Printed Patent
Under §1480 of the Manual of Patent
Examining Procedures
U.S. Patent No.: 6,925,954
Date of Patent: August 9, 2005
Inventor(s): Van Acker, Jr., et al.
Our File No.: 1791.007

Certificate
SEP 20 2005
of Correction

Dear Sir:

We are in receipt of your letter dated September 6, 2005, copy enclosed, whereby you stated that the corrections we submitted were printed in accordance with the record in the Patent and Trademark Office, and therefore denying our Certificate of Correction.

Transmitted herewith is the original copy of the proposed Certificate of Correction effecting a corrective amendment, the original transmittal letter, copies of original postcards, along with a copy of an Office Action dated December 6, 2004, please see yellow post-it-notes to indicate where these corrections were made.

The patentee respectfully solicits the granting of the requested Certificate of Correction.

Respectfully submitted,



Victor A. Cardona, Esq.
Registration No. 44,589
Attorney for Applicants

VAC/cma
Enclosure

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September 13, 2005

SEP 26 2005



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

Date Mailed : September 6, 2005

COPY

Patent No. : 6,925,954 B1

Inventor : Van Acker, Jr et al

Patent Issued : August 9, 2005

Title : SYSTEM AND METHOD FOR ALLOWING UNDERWATER ESCAPE FROM
A SUBMARINE

Docket No. : 1791.007

Re: Request for Certificate of Correction

Consideration has been given your request for the issuance of a certificate of correction for the above-identified patent under the provisions of Rule 1.322.

Inspection of the file of the application for the patent reveals that claims 2 and 3 of the specification, is/are printed in accordance with the record in the Patent and Trademark Office, as passed to issue by the examiner. There being no fault on the part of the Patent and Trademark Office, it has no authority to issue a certificate of correction under the provision of 1.322.

In view of the foregoing, your request for certificate of correction is hereby denied. However, further consideration will be given these matters, upon receipt of a request for certificate of correction under the provisions of 1.323, accompanied by the appropriate fee which is presently \$100.

Future correspondence concerning this matter should be filed and directed to Decisions & Certificates of Correction Branch.

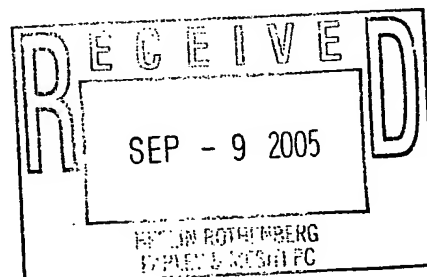
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Attn: Certificates of Correction Branch

David Irvine

David Irvine
Cecilia Newman, Supervisor
Decisions & Certificates of Correction Branch
703/308-9590 or 703/305-4362

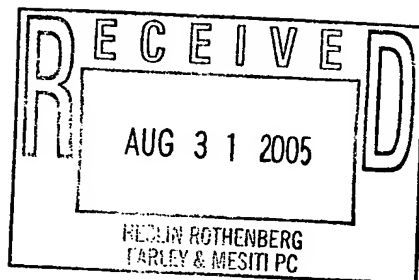
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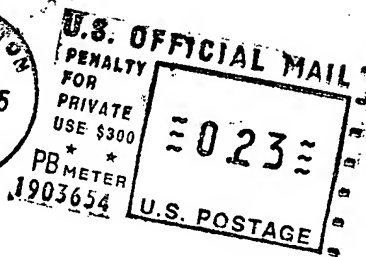


SEP 26 2005

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PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231



A request for a Certificate of Correction has
been received for U.S. Patent 6925954

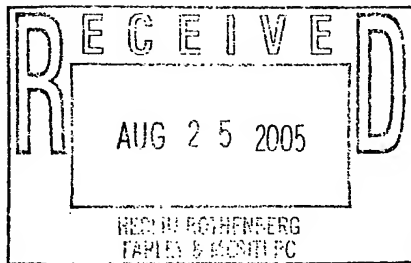
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1791.007

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SEP 26 2005

COPY



Applicant: Van Acker, Jr., et al.
Patent No.: 6,925,954
Patent Date: August 9, 2005
Title: SYSTEMS AND METHODS FOR ALLOWING UNDERWATER ESCAPE
FROM A SUBMARINE

Enclosed: Transmittal Letter
Certificate of Correction
Postcard

1791.007 VAC/cma

Mailed: 08/17/05
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COPY

Applicant: Van Acker, Jr., et al.
Patent No.: 6,925,954
Patent Date: August 9, 2005
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August 16, 2005

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Re: Correction of Mistake in Printed Patent
Under §1480 of the Manual of Patent
Examining Procedures
U.S. Patent No.: 6,925,954
Date of Patent: August 9, 2005
Inventor(s): Van Acker, Jr., et al.
Our File No.: 1791.007

Dear Sir:

Upon proofreading the sealed patent, we noticed errors made by the Patent Office.

Transmitted herewith is a proposed Certificate of Correction effecting a corrective amendment.

The patentee respectfully solicits the granting of the requested Certificate of Correction.

Respectfully submitted,



Victor A. Cardona, Esq.
Registration No. 44,589
Attorney for Applicants

VAC/cma
Enclosure

SEP 26 2005

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

PATENT NO. : 6,925,954

Page 1 of 1

APPLICATION NO. : 10/785,145

ISSUE DATE : August 9, 2005

INVENTOR(S) : Van Acker, Jr., et al.

COPY

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claims:**Claim 2:**

Col. 10, line 33, delete the words "escape tower"

Col. 10, line 35 and 36, delete the words "configured" and "escape tower"

Claim 3:

Col. 10, line 37 and 38, delete the words "connector located at an upper end of said plurality of walls,"

MAILING ADDRESS OF SENDER (Please do not use customer number)

Victor A. Cardona, Esq.

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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

SEP 26 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Van Acker

Confirmation No.: 8182

Serial No.: 10/785,145

Group Art Unit: 3617

Filed: February 24, 2004

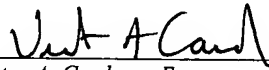
Examiner: Jesus D. Sotelo

Title: SYSTEM AND METHODS FOR ALLOWING UNDERWATER ESCAPE FROM A SUBMARINE

COPY

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being transmitted by facsimile on December 6, 2004 to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, Attn: Examiner Jesus D. Sotelo Group Art Unit 3617, at Facsimile No. (703) 872-9306.



Victor A. Cardona, Esq.
Registration No. 44,589
Attorney for Applicants

Date of Signature: December 6, 2004

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Fax No.: (703) 872-9306
No. of Pages: 11
(Including Amendment Transmittal)

RESPONSE TO OFFICE ACTION UNDER 37 C.F.R. § 1.111

Dear Sir:

This paper is filed in response to the Office Action mailed on September 29, 2004, in connection with the above-identified U.S. patent application. The three-month period for response expires on December 29, 2004. Accordingly, this response is timely filed.

Please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 8 of this paper

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. ***(Currently Amended)*** A system for allowing underwater escape from a submarine comprising:

a plurality of walls forming an escape tower having an interior configured to receive at least one person, said plurality of walls configured to resist collapse due to a force of external water[[:]], said plurality of walls separating said interior from an exterior of the system.

a lower escape tower connector located at a bottom end of said plurality of walls, said lower escape tower connector configured to sealingly attach to a hatch connector of a submerged submarine;

a lower hatch located at said bottom end, said hatch allowing a person to pass therethrough;

means for providing air to said interior;

means for selectively maintaining said interior substantially free of the water;

an upper [[a]] hatch formed in said plurality of walls, said upper hatch being selectively openable to allow [[a]] the person to pass [therethrough] between said interior and an exterior of said the plurality of walls through the upper hatch[[:]]; and

an upper escape tower connector located on said plurality of walls, said upper escape tower connector configured to sealingly connect to a lower escape tunnel connector of an escape tunnel to allow the person to pass from the interior to a tunnel interior of the escape tunnel.

2. ***(Currently Amended)*** The system of claim 1 further comprising an escape tunnel ~~connectable~~connected to an upper end of said ~~escape tower~~plurality of walls, said tunnel comprising a lower tunnel connector ~~configured to sealingly connect~~connected to said ~~escape tower~~plurality of walls.

3. **(Currently Amended)** The system of claim 2 ~~further comprising an upper escape tower connector located at an upper end of said plurality of walls, wherein said upper escape tower connector is configured to sealingly connect~~ connected to a lower escape tunnel connector of said escape tunnel.
4. **(Original)** The system of claim 3 wherein said tunnel is configured to allow a person to pass therethrough from said interior of said tower to an air-water interface at a top of a water column above the submarine.
5. **(Original)** The system of claim 3 wherein said tunnel comprises a plurality of riser tubes connected to each other.
6. **(Original)** The system of claim 5 further comprising an alignment-compensator connected to two of said plurality of riser tubes.
7. **(Original)** The system of claim 6 wherein the alignment-compensator comprises a blowout diverter.
8. **(Original)** The system of claim 5 further comprising a flexible joint connected to two of said plurality of riser tubes
9. **(Original)** The system of claim 1 wherein said walls comprise high strength, low alloy steel.
10. **(Original)** The system of claim 1 wherein said hatch connector comprises a submerged wellhead connector and said lower escape tower connector is configured to sealingly connect to said submerged wellhead connector.
11. **(Original)** A method for allowing underwater escape from a submarine, the method comprising:
attaching a lower escape tower connector of an escape tower to a escape hatch connector of a submerged submarine to sealingly attach a lower end of the escape tower to the submarine;
replacing water in an interior of the escape tower with air;

opening an exterior hatch of the submarine and passing a person through the hatch into the interior;

discharging air from the interior of the escape tower;

opening a hatch of the escape tower;

ascending the person to a water surface utilizing an escape hood.

12. **(Original)** The method of claim 11 wherein the attaching the lower escape tower connector to the hatch connector of the submerged submarine comprises remotely attaching the lower escape tower connector utilizing a drill string.

13. **(Original)** The method of claim 11 wherein the replacing the water in an interior of the escape tower comprises remotely providing air to the interior utilizing a drill string.

14. **(Original)** The method of claim 11 wherein the lower escape tower connector comprises a connector configured to connect a drilling riser tube to a submerged wellhead connector and wherein the hatch connector of the submerged submarine comprises a submerged wellhead connector.

15. **(Original)** The method of claim 11 wherein the interior of the escape tower is configured to allow a person to be received therein and to pass therethrough.

16. **(Original)** A method for allowing underwater escape from a submarine, the method comprising:

attaching a lower escape tower connector of an escape tower to a hatch connector of a submerged submarine to sealingly attach a lower end of the escape tower to the submarine;

attaching a first riser tube to an upper escape tower connector of the escape tower;

forming an escape tunnel by attaching a second riser tube to the first riser tube;

replacing water in an interior of the escape tower and a tunnel interior of the escape tunnel with air;

opening an exterior hatch of the submarine and passing a person through the hatch;

raising the person to water's surface through the tunnel.

17. **(Original)** The method of claim 16 wherein the first riser tube and the second riser tube comprise drilling riser tubes configured for use in drilling undersea petroleum wells.
18. **(Original)** The method of claim 16 wherein the raising comprises the person being received in a harness and the person being raised to the surface by a winch connected to the harness by a cable.
19. **(Original)** The method of claim 16 further comprising attaching an elbow fitting between the hatch connector and the escape tower.
20. **(Original)** The method of claim 19 wherein the elbow fitting comprises a lower elbow connector and an upper elbow connector and further comprising connecting the lower elbow connector to the hatch connector and the upper elbow fitting to the upper escape tower connector.
21. **(Original)** The method of claim 16 wherein the attaching the lower escape tower connector to the hatch connector comprises remotely attaching the lower escape tower connector utilizing a drill string.
22. **(Original)** The method of claim 16 wherein the replacing the water in an interior of the escape tower comprises remotely providing air to the interior utilizing a drill string.
23. **(Original)** The method of claim 16 wherein the hatch connector comprises a submerged wellhead connector and wherein the lower escape tower connector comprises a lower escape tunnel connector configured to connect a drilling riser tube to the submerged wellhead connector.
24. **(Original)** The method of the 16 wherein the first riser tube and the second riser tube comprise riser tubes of a plurality of riser tubes of the tunnel and further comprising attaching an alignment-compensator between two riser tubes of the plurality of riser tubes of the tunnel utilizing a drill string.
25. **(Original)** The method of claim 24 wherein the alignment-compensator comprises a blowout diverter.

26. **(Original)** The method of claim 16 wherein the first riser tube and the second riser tube comprise riser tubes of a plurality of riser tubes of the tunnel and further comprising attaching a flexible joint between two riser tubes of the plurality of riser tubes of the tunnel utilizing a drill string.
27. **(Original)** The method of claim 16 further comprising attaching the hatch connector of the submarine to the submarine by attaching a hatch assembly to the submarine.
28. **(Original)** The method of claim 27 further comprising drilling a hole in the submarine to allow a person to pass through the hole and through the hatch assembly into at least one of the interior the escape tower and an escape tunnel.
29. **(Original)** A method for allowing underwater escape from a submarine, the method comprising:
- attaching a hatch assembly to the exterior of the submarine when the submarine is submerged;
 - attaching an escape tower to a connector of the hatch assembly;
 - attaching an escape tunnel to the escape tower;
 - sealing the hatch assembly relative to the exterior of the submarine;
 - attaching a drilling guide to the escape tower; and
 - drilling a hole in a wall of the submarine through the drilling guide.
30. **(Original)** The method of claim 29 further comprising attaching hull weld lugs to the exterior of the submarine.
31. **(Original)** The method of claim 30 further comprising attaching an escape tower to the weld lugs via a cable.
32. **(Original)** The method of claim 29 wherein the sealing comprises sealing the hatch assembly to the submarine by welding an interior weld on an interior surface of the hatch assembly.
33. **(Original)** The method of claim 29 wherein the hatch assembly further comprises a low temperature seal for sealing the hatch assembly relative to the exterior.

34. (New) A system for allowing underwater escape from a submarine comprising:

a plurality of walls forming an interior configured to receive at least one person, said plurality of walls configured to resist collapse due to a force of external water, said plurality of walls separating said interior from an exterior of the system;

a lower escape tower connector located at a bottom end of said plurality of walls, said lower escape tower connector configured to sealingly attach to a hatch connector of a submerged submarine;

a lower hatch located at said bottom end, said lower hatch allowing a person to pass therethrough;

means for providing air to said interior;

means for selectively maintaining said interior substantially free of the water;

means for ~~providing~~ selectively substituting the water ~~to~~ for the air in said interior when the system is submerged underwater and said lower escape tower connector is attached to the hatch connector;

an upper hatch formed in said plurality of walls, said upper hatch being selectively openable to allow the person to pass between said interior and an exterior of said plurality of walls through the upper hatch.

REMARKS

Without acquiescing to the propriety of the rejections in the Office Action dated September 29, 2004, claims 1-3 have been amended. Entry of these amendments, reconsideration of the application, and allowance of all claims pending herein is respectfully requested in view of the remarks below. Claims 1-33 are now pending.

Initially, applicant gratefully acknowledges the allowance of claims 11-33 and the conditional allowance of claim 10 upon it being rewritten in independent form to include all limitations of the base claim and any intervening claims. Applicant respectfully defers rewriting claim 10 in view of the remarks below.

Claim Rejections Under 35 U.S.C. § 112:

Claim 2-8 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention. In particular, the Office Action objects to the lack of proper antecedent basis for "said escape tower". Claim 2 has been amended to remove "escape tower" thereby overcoming this rejection.

Claim Rejections Under 35 U.S.C. §§ 102:

Claims 1 and 9 stand rejected under 35 U.S.C. 102(b) as being anticipated by Hellman (U.S. Patent No.: 2,077,477).

Amended claim 1 recites a system for allowing underwater escape from a submarine which includes a plurality of walls forming an escape tower having an interior configured to receive at least one person. The plurality of walls is configured to resist collapse due to a force of external water. A lower escape tower connector is connected to a bottom end of the plurality of walls and is configured to sealingly attach to a hatch connector of a submerged submarine. A lower hatch is located at the bottom end of the plurality of walls and allows a person to pass therethrough. Also included are means for providing air to the interior and means for selectively maintaining the interior substantially free of the water. An upper hatch is formed in the plurality of walls and is selectively openable to allow the person to pass between the interior and an exterior of the plurality of walls through the upper hatch. An upper escape tower connector is located on said plurality of walls and is configured to sealingly connect to a lower escape tunnel connector of an escape tunnel to allow the person to pass from the interior to a tunnel interior of the escape tunnel.

Hellman discloses a submersible rescue apparatus which is connectable to a submarine as depicted in FIG. 1. Hellman discloses an interior having a plurality of compartments and one door providing communication between the interior of the Hellman device and an interior of a submarine attached thereto. However, Hellman does not disclose an upper escape tower connector located on a plurality of walls forming an interior, nor the upper escape tower connector being configured to sealingly connect to a lower escape tunnel connector of an escape tunnel to allow a person to pass between the interior of the plurality of walls and a tunnel interior of the escape tunnel. Instead, Hellman discloses a device having an interior which includes a plurality of compartments and a plurality of hatches between such compartments along with a hatch located at a bottom of the device to allow a person to pass from a submarine into the interior of the Hellman device. However, there is no disclosure of a device which has a connector on a plurality of walls to allow an escape tunnel to be connected thereto such that a person may pass between an interior of the tunnel and an interior of the device. More specifically, the Hellman device lacks a connector allowing the Hellman device to connect to an escape tunnel such that a person may pass from the Hellman device into such an escape tunnel.

Thus, because the features (e.g., an upper escape tower connector located on a plurality of walls which is configured to sealingly connect to a lower escape tunnel connector of an escape tunnel to allow a person to pass between the interior and a tunnel interior of the escape tunnel) of claim 1 of the present application are not identically disclosed by Hellman, this claim cannot be anticipated thereby. Accordingly, claim 1 is believed to be allowable along with the dependent claims, which are believed to be allowable for the same reasons and for their own additional features.

Claim 34 has been added which recites, inter alia, means for providing air to an interior of a plurality of walls separating the interior from an exterior of a system and means for substituting water for the air in the interior when the system is submerged underwater and a lower escape tower connector located at a bottom end of the plurality of walls is attached to a hatch connector of a submerged submarine.

Hellman does not disclose means for selectively substituting water for air in an interior thereof when the Hellman device is submerged and a connector thereof is attached to a hatch connector of the submerged submarine. Instead, the purpose of Hellman is to maintain water on an exterior side thereof such that personnel may pass from a submerged submarine into the interior of the Hellman device and the device may carry them to the surface with the interior thereof continuously containing air. In contrast, claim 34 recites, inter alia, means for selectively substituting water for air in an interior of a plurality of walls when the system is submerged underwater and a lower escape tower connector located on a bottom end of the plurality of walls is connected to a hatch connector of the submerged submarine. As described

on pages 7 and 8 of the present application, a user of the system for allowing underwater escape from a submarine may enter an interior thereof, don an escape hood, flood the interior with sea water, open an outer hatch, and ascend to the water surface. However, there would be no reason to flood the interior of the Hellman device and therefore there would be no reason for a means for substituting water for air in an interior thereof when the device is connected to a submerged submarine, since the Hellman device is designed to continuously contain air such that it may carry personnel from a submerged location to the surface.

Thus, because the features (e.g., means for selectively substituting water for air in an interior formed by a plurality of walls configured to receive at least one person when the system is submerged underwater and a lower escape tower connector located on the bottom end of the plurality of walls is connected to a hatch connector of a submerged submarine) of the present application are not identically disclosed by Hellman, this claim cannot be anticipated thereby. Accordingly, claim 34 is believed to be allowable.

CONCLUSION

It is believed that the application is in condition for allowance, and such action is respectfully requested. If a telephone conference would be of assistance in advancing prosecution of the subject application, the Examiner is invited to telephone the undersigned attorney at the telephone number provided.

Respectfully submitted,



Victor A. Cardona, Esq.
Attorney for Applicant(s)
Registration No. 44,589

Dated: December 6, 2004

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